Amendments to the Specification

Please replace paragraph [0033] with the following rewritten paragraph:

[0033] A representative hardware data path diagram 200 is shown in Figure 8. In this figure, a controlling state machine 202, receives a vertical data enable signal and an input luma signal. The state machine 202 controls a creation of histogram **block** ~~black~~ 204, a histogram average 206, template weight calculator 208, a template transfer function **block** ~~black~~ 210 and a snapping function block 212. Memory 214 stores average histogram and the previous histogram. Memory 216 stores the template transfer function.